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THE OHIO STATE UNIVERSITY

Vol. XXV, No. 3

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Educational Research Bulletin

MARCH 13, 1946
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Secondary-School Buildings in Twelve Ohio Cities

By W. R. FLESHER

Some time ago the writer presented in the BULLETIN an overview of the elementary-school plants of twelve Ohio cities in which the Survey Division of the Bureau of Educational Research had recently completed studies of school-building needs.[1] In these studies, 185 elementary-school buildings were appraised. In 1945, these buildings had an average age of 41 years, were located on sites which averaged 2.3 acres, and received an average score of 556 on the Holy-Arnold Score Card.

The present article is a companion one, presenting an overall appraisal of the secondary-school plants of these twelve Ohio cities. The organization of material contained herein parallels closely that followed in the discussion of the elementary-school plants. The writer's aim is to present complementary material which will enable the reader to make comparisons readily and reliably. The basic question is whether or not these twelve Ohio cities have provided more or less adequately for the housing of youth at the high-school level than they have for those of elementary-school age. Not only can this comparison be made, but some inferences can also be drawn concerning the general adequacy of the secondary-school buildings of these Ohio cities.

There are 44 secondary-school buildings in these cities, distributed according to type of organization as follows: 20 junior high schools, 6 senior high schools, 7 four-year high schools, and 11 six-year high schools.

In Table I, the cities in which the studies of school-building needs were made are indicated by letters, and the population

[1] Flesher, W. R. "Elementary-School Buildings in Twelve Ohio Cities," EDUCATIONAL RESEARCH BULLETIN, XXV (January, 1946), pp. 2–7.

of each city and certain general information about its secondary-school buildings are given. It can be seen that the cities differ greatly in population and, in this respect, represent a relatively good sample of Ohio cities. Furthermore, these cities comprise approximately one-tenth of the city school districts of Ohio and about one-eighth of the total population of the state. In these twelve cities, taken as a group, the ratios of buildings to population are: one elementary-school building for each 4,837 inhabitants, and one secondary-school building for each 20,337.

The figures in Column 4 of Table I show that the secondary-school buildings of *G* are the newest; their average age is 10 years. *I* has the oldest group of secondary-school buildings; the average age is 62 years. *E* ranks first in size of site for secondary-school buildings, with an average of 11.3 acres; and *A* ranks last with a site of 1.8 acres for its high-school building. In many cases, the buildings evaluated had sites smaller than the minimums prescribed in the Holy-Arnold *Standards*, as a comparison of these standards with the averages presented in Table I will show. The desirable minimum areas of school sites for secondary schools are as follows:

Enrollment	Acres in Site	
	Junior High	Senior High
500 or less	5	6
501 to 1,000	6	8
1,001 to 1,500	10	12
Over 1,500	12	15[2]

Inadequacies in school buildings are generally related very closely to the age of the buildings. Because of this fact, additional information concerning the age of the school buildings in the twelve cities is presented in Table II. The average age of the 44 buildings is 29 years; the median age is the same. Fifty years is generally considered as the average useful life of a school building. Table II shows that eleven buildings, or approximately 9 per cent, are 50 years old or older. Approximately 20 per cent of the buildings have been constructed within the past twenty years. The buildings range in actual age from 5 years, for the Hillman building in *G*, to 76 years, for the Washington building in *B* and the high-school building in *I*.

[2] Holy, T. C., and Arnold, W. E. *Standards for the Evaluation of School Buildings*. Columbus, Ohio: Ohio State University, 1936. p. 2. (Bureau of Educational Research Monographs, No. 20).

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TABLE I

CITIES SURVEYED AND CERTAIN DATA CONCERNING THEIR SECONDARY-SCHOOL BUILDINGS

CITY	1940 POPULATION	SECONDARY-SCHOOL BUILDINGS		
		Number	Average Age*	Average Size of Site (Acres)
(1)	(2)	(3)	(4)	(5)
A	12,453	1	31	1.8
B	455,610	12†	30	8.4
C	25,120	2	48	4.4
D	20,228	3	20	5.2
E	50,592	3	19	11.3
F	44,711	2	38	4.7
G	37,154	3	10	7.0
H	12,235	2	37	4.3
I	24,874	2	62	2.4
J	6,643	1	21	9.8
K	167,720	9	21	7.1
L	37,500	4	35	3.4

* Of oldest part of each building as of 1945.
† Exclusive of vocational schools.

TABLE II

AGES OF SECONDARY-SCHOOL BUILDINGS IN 1945*

CITY	NUMBER OF BUILDINGS IN EACH AGE GROUP								
	Below 10	10–19	20–29	30–39	40–49	50–59	60–69	70–79	80 or Above
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A	.....	.....	.....	1	.....	.....	.....	.....	.....
B	.....	3	3	5	.....	.....	.....	1	.....
C	.....	.....	.....	.....	1	1	.....	.....	.....
D	.....	.....	3	.....	.....	.....	.....	.....	.....
E	.....	.....	.....	2	1	.....	.....	.....	.....
F	.....	.....	.....	1	1	.....	.....	.....	.....
G	2	1	.....	.....	.....	.....	.....	.....	.....
H	.....	.....	1	.....	1	.....	.....	.....	.....
I	.....	.....	.....	.....	1	.....	.....	1	.....
J	.....	.....	1	.....	.....	.....	.....	.....	.....
K	1	2	4	2	.....	.....	.....	.....	.....
L	.....	.....	2	1	.....	.....	1	.....	.....
Total	3	6	14	12	5	1	1	2	...

* The age of a building is determined by the age of its oldest part.

THE buildings and sites were evaluated by the use of the Score Card for the Evaluation of Junior and Senior High School Buildings, devised by T. C. Holy and W. E. Arnold. The total possible score on this card is 1,000 points. This card is quite similar to that used for scoring elementary-school buildings except that the score card for secondary-school buildings

has seven major divisions and that for elementary-school buildings has only five. Total scores for secondary-school buildings are translated into descriptive categories in the same way as those for elementary-school buildings; that is, 850 to 1,000, excellent; 700 to 849, good; 550 to 699, fair; 400 to 549, poor; and below 400, definitely unsatisfactory.

The distribution of the total scores allotted to secondary-school buildings and sites in the twelve cities, expressed as percentages of the total number of buildings in each city with scores in a given range, are shown in Table III, together with the median score for the buildings of each city. It can be seen

TABLE III

SCORES ALLOTTED ON THE HOLY-ARNOLD SCORE CARD TO PUBLIC SECONDARY-SCHOOL BUILDINGS

CITY	PERCENTAGE OF BUILDINGS IN EACH RANGE OF SCORES					TOTAL NUMBER OF BUILDINGS	MEDIAN SCORE
	850–1,000	700–849	550–669	400–549	Below 400		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A	.....	.....	100	.....	.....	1	651
B	.....	25	42	33	.....	12	564
C	.....	.....	100	.....	.....	2	635
D	.....	33	67	.....	.....	3	675
E	.....	67	.....	33	.....	3	717
F	.....	.....	100	.....	.....	2	635
G	33	67	.....	.....	.....	3	816
H	.....	.....	50	.....	50	2	453
I	.....	.....	100	.....	.....	2	652
J	.....	.....	100	.....	.....	1	660
K	.....	11	78	11	.....	9	639
L	.....	.....	50	25	25	4	535
Total	1	9	25	7	2	44	637

that only *G* has a building and site in the "excellent" category. Seven of the cities have no building and site scoring above "fair." Only two of the cities have buildings rated "definitely unsatisfactory." In terms of total scores, *G*, with all its buildings in the "good" or "excellent" category and a median score of 816, has the best secondary-school plant. The median score for all 44 buildings is 637, or "fair."

A total score indicates the relative adequacy of the building and site as a whole but does not reveal the general areas of deficiency. Table IV is presented to show how the secondary-school plant of each city rated according to the seven major divisions of the score card. The percentages shown in Table IV are interpreted descriptively as follows: 85 to 100, excellent;

TABLE IV

AVERAGE PERCENTAGES OF MAXIMUM SCORES ALLOTTED TO THE SECONDARY-SCHOOL BUILDINGS ON THE SEVEN MAJOR DIVISIONS OF THE HOLY-ARNOLD SCORE CARD

CITY	AVERAGE PERCENTAGES OF MAXIMUM SCORE FOR EACH MAJOR DIVISION							
	Site (120)*	Building (158)	Academic Classrooms (167)	Special Classrooms (171)	General-Service Rooms (153)	Administrative Rooms (92)	Service Systems (139)	Total (1000)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A	72	67	67	65	52	54	77	65
B	60	68	69	53	49	39	76	60
C	84	70	80	44	43	38	82	64
D	79	79	77	65	61	38	85	70
E	73	81	71	61	55	44	75	64
F	78	66	56	55	56	62	79	64
G	62	87	84	83	74	62	89	82
H	71	53	55	32	23	27	58	45
I	70	72	83	56	46	42	82	65
J	76	75	74	47	54	51	86	66
K	74	73	69	57	49	43	79	59
L	74	58	57	47	34	33	62	52

* The number in parenthesis is the total number of points that could be allotted to a building in that major division of the score card.

TABLE V

DISTRIBUTION OF THE SECONDARY-SCHOOL PLANTS AMONG THE DESCRIPTIVE CATEGORIES BY MAJOR DIVISIONS OF THE SCORE CARD

DESCRIPTIVE CATEGORY	NUMBER OF SCHOOL PLANTS IN EACH CATEGORY, BY MAJOR DIVISIONS OF THE SCORE CARD						
	Site	Building*	Academic Classrooms	Special Classrooms	General-Service Rooms†	Administrative Rooms	Service Systems
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Excellent	....	1	.....	.....	.....	.....	3
Good	10	6	6	1	1	.....	7
Fair	2	4	6	6	3	2	2
Poor	....	1	.....	4	6	5	.....
Unsatisfactory	....	.....	.....	1	2	5	.....

* Gross structure, corridors, stairways, lobbies, and basement.

† Auditorium, gymnasium, library, cafeteria, offices, clinic, workrooms, industrial-arts and home-economics rooms, janitor's rooms, etc.

70 to 84, good; 55 to 69, fair; 40 to 54, poor; and below 40, definitely unsatisfactory. The percentages for each city are averages of the percentages for the major divisions for all school buildings comprising the secondary-school plant of that city. In Table V the percentages shown in Table IV have been distributed among the five descriptive categories to determine how many of the twelve school plants are in each category for

each of the major divisions of the score card. A study of Tables IV and V reveals to what extent the school plants are adequate with respect to major divisions. It is obvious that the school plants are most deficient in administrative rooms and general-service rooms. For example, the school plants of ten

TABLE VI

COMPARISON OF CERTAIN FEATURES OF THE ELEMENTARY- AND SECONDARY-SCHOOL BUILDINGS

Types of Plants	Number of Buildings	Average Age*	Median Age*	Percentage 50 Years Old or Older	Average Acres in Sites	Average Total Scores†
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Elementary-school buildings	185	41	39	34.6	2.3	556
Secondary-school buildings	44	29	29	9.1	6.7	631

* Of oldest part of each building as of 1945.
† On Holy-Arnold score cards for buildings and sites.

TABLE VII

DISTRIBUTION OF THE SCHOOL PLANTS AMONG THE DESCRIPTIVE CATEGORIES BY MAJOR DIVISIONS OF THE SCORE CARD FOR ELEMENTARY-SCHOOL BUILDINGS

Descriptive Category	Site		Building		Academic Classrooms		General-Service Rooms		Service Systems	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Excellent	....	....	....	1	....	....	....	....	....	3
Good	8	10	1	6	4	6	....	1	1	7
Fair	4	2	9	4	6	6	....	3	9	2
Poor	....	....	1	1	2	....	1	6	2	....
Unsatisfactory	....	....	1	....	....	....	11	2	....	....

of the twelve cities scored below "fair" on administrative rooms and those of eight of the cities were below this category for general-service rooms. The major divisions showing the highest degree of adequacy are service systems and sites.

To assist the reader in making comparisons of the elementary- and secondary-school plants of the twelve Ohio cities, Tables VI and VII have been prepared. A study of these two tables leads one to the conclusion that the secondary-school plants of these Ohio cities are more adequate in many respects

than are the elementary-school plants. For example, the comparison of the respective figures in Columns 2 and 3 in Table VI reveals that the secondary-school buildings are, on the average, 12 years newer than the elementary-school buildings; the average size of their sites is approximately three times as great; their average score is 75 points higher; and a much smaller percentage of the secondary-school buildings are more than fifty years of age.

In Table VII, comparisons are made between the two types of school plants on the basis of those major divisions of the score card that are common to both cards. The distribution shown in Table VII is further evidence that the twelve cities have provided more adequate school plants for pupils of secondary-school age than they have for those of elementary-school age. In some cases, high-school buildings which have become crowded or somewhat obsolete for high-school use have been converted to use by elementary schools. In general this "hand-me-down" procedure is not commendable. Another contributing factor is that the high-school movement followed the establishment of elementary schools. In terms of differences in size of sites, the greater emphasis in secondary schools on competitive athletics has generally resulted in larger sites for the high schools.

In conclusion it may be said that the over-all view of the secondary-school plants is much more heartening than that of the elementary-school plants. It should be borne in mind, however, that in both cases the summary is one largely of central tendencies. The reader should be cautioned also that the situation herein discussed may not be typical of Ohio city school districts. The fact that all twelve cities had requested studies of school-building needs indicates that the situation probably is atypical.

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* * *

ONLY 27 per cent of the 4,080 urban teachers who cooperated in the study reported in the *Research Bulletin* of the National Education Association for last December and 38 per cent of the 740 rural teachers favored periodic physical examinations for the teacher in service under direction of the school authorities. The plan favored by about half of the teachers would provide no periodic examinations but would authorize school authorities to require a physical examination at any time when it appears that a teacher's health is in question.

"'Round the Mulberry Bush"

By HAROLD J. BOWERS

THE little singing game, "Here We Go 'round the Mulberry Bush," which most of us played as children, seems to have had a lifelong effect upon those of us who became teachers. At any rate, we spend considerable time chasing each other around in a circle and seem to find it difficult to launch out in a straight line toward our objective.

Some time ago, the State Department of Education published an article in which evidence was submitted to show that high-school graduates lack competence in the fundamental tools of learning. The public schools reluctantly admit that many of their graduates do not measure up to a desired standard, and are inclined to blame the colleges for poorly trained teachers. In an article entitled "A Little Learning . . . " Mr. Seely, of Ohio State University, states that "one of the chief causes of the embarrassing situation in which we find ourselves . . . may be laid uncermoniously at the door of the State Department of Education."[1] The cause, as Mr. Seely puts it, is that "four-year certificates to teach the so-called academic subjects are issued to many inadequately trained persons." With this statement the Department of Education agrees, but not with the supporting argument which implies that the difference between an adequately trained teacher and an inadequately trained one is ten semester-hours of credit. This argument is not new; it reaches us from most campuses. There is little agreement among college specialists as to what is required to train a competent teacher, but there seems to be unanimous agreement that it takes a lot of it.

The purpose of this article is not to defend the 15–semester-hour minimum requirement for certification in the so-called academic subjects, although we could point out the fact that this requirement is identical with the standard prescribed by the North Central Association, and is consistent with the standard prescribed by the majority of states. The purpose is rather to point out two facts which seem to have escaped Mr. Seely's attention, and to suggest what occurs to me to be a more satisfactory means of correcting the situation than the mere arbitrary prescription of an additional ten semester-hours of *B* credit by the Department of Education.

[1] EDUCATIONAL RESEARCH BULLETIN, XXV (February, 1946), pp.29–33.

The Department of Education points out on page 7 of its *Laws and Regulations Governing the Certification of Teachers* that

> the regulations prescribed by the director of education for the issuance of any type or grade of certificate are minimums and should not be construed as being optimums or maximums. Teacher-training institutions and local school authorities may prescribe additional or higher requirements than those prescribed by the director of education.

This permits flexibility in administration and reserves to the institution the right to prescribe such courses as may be deemed necessary to develop competence in the individual student. Certainly no one would argue for a uniform prescription of courses for all students preparing to teach. The fact that 35.2 per cent of English teachers granted provisional certificates have in excess of 25 semester-hours of credit, and that 52.5 per cent have between 15 and 25 semester-hours of credit, indicates that most institutions have the situation in hand, at least in so far as semester-hours are concerned.

Provisional certificates are issued only upon the recommendation of the institution in which the applicant completes the required pattern of training. Such recommendation is construed by this office to mean that that institution is thereby putting its stamp of approval upon the applicant and guaranteeing competence in the subjects he is recommended to teach.

THE Department of Education insists that teacher competence cannot be measured exclusively in terms of semester-hours of credit for work which satisfies prescribed qualitative standards. We believe that the intelligence of the student, the effectiveness of the guidance he receives, and the quality of the instruction he has been given, are much more important factors than the number of courses he completes.

Mr. Seely has pointed out that "getting a minor is largely a matter of shopping and juggling." With this statement we also agree. But is this situation also to be "laid unceremoniously at the door of the State Department of Education"? We insist that the responsibility for an effective and functional program of guidance rests with the college, and that no student should be recommended for certification unless he has completed a planned program that the institution is willing to endorse.

In support of his request that the minimum requirement for

certification in the academic subjects be increased from 15 to 25 semester-hours, Mr. Seely points out that in the special fields of art, home economics, industrial arts, and so on, the applicant is required to spend from one-third to three-fifths more time and effort in preparation to teach these subjects than is required of those preparing to teach English, mathematics, history, and so on. This is quite true, but the prospective teacher of English has already completed twelve years of the study of English before he enters college. The same is true to a lesser degree of the prospective teacher of other academic subjects. The minimum requirement in the special subject assumes no previous preparation in that subject. For those who may have had it, demonstrated competence through examination often results in advanced-standing credit, thereby lowering the prescribed minimum that the student is required to take.

THUS far, this article has run true to form and passed the buck back to the college, and once more we have completed the circle. Can we call a halt to this endless chasing and buck-passing, and sit down together, where we can calmly and coolly discuss the situation and accept our individual responsibilities?

In the belief that we can, the Department of Education recently called a conference of college people, superintendents, principals, and classroom teachers, for the purpose of developing a co-ordinated program of teacher education for Ohio. Out of this conference, an advisory committee is being formed to develop a program aimed at improvement of instruction at the public-school and college levels through the recruitment of better prospective teachers, the improvement of teachers in service, and a revision of the present pattern of pre-service teacher education. In this attempt, the Department of Education solicits the co-operation of every person interested in improving the education of Ohio's children.

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* * *

IN THE *Research Bulletin* of the National Education Association for last December, 32 per cent of the 4,080 urban teachers co-operating favored a physical examination of new teachers under direction of the school authorities; 60 per cent preferred the filing of a health certificate from the teacher's own physician; and 7 per cent wanted no physical examination at all.

Student-Teaching Opportunities Provided by Universities

By LINDLEY J. STILES

THE most practical and useful phase of the undergraduate program of professional preparation for teaching, in the opinion of experienced teachers as well as of authorities on teacher education, is student teaching. During the experience of student teaching, the prospective teacher, in some instances for the first time during his college career, has an opportunity to enter actively into an actual school situation. He observes experienced teachers working with children and begins to share the responsibility of teaching. However vague and theoretical his previous professional courses may have seemed to him, here is a situation which is filled with reality—real children in a real school. It is during his experiences as a student teacher that the prospective teacher finds an opportunity to test his theories and beliefs about teaching. Under the guidance of a supervising teacher, the novice begins to try his own hand, to discover his own potentialities and limitations.

There is a definite need for the careful study and analysis of the programs of student teaching which are offered by institutions of higher learning. Those who employ beginning teachers and, indeed, many beginning teachers themselves complain that student-teaching experience is too limited to permit prospective teachers to gain an adequate comprehension of the responsibilities of teaching. Critics of existing programs mention the following weaknesses: the beginning teacher is not prepared to teach in schools which are developing general-education or core classes; he is unable to carry his share of the school-guidance program; he fails to utilize the methods of teaching which have proved best for the secondary schools, and he knows little about teacher-pupil planning, the use of visual aids, or modern techniques and instruments of evaluation; he lacks professional loyalty toward teaching, evidenced by a hesitancy in becoming associated with professional organizations, and by little interest in curriculum development or in-service training programs; and the beginning teacher does not take part in school and community activities and thereby fails to develop general effectiveness as a member of the school faculty.

Many who have studied this problem attribute these inadequacies to the general practice of giving the prospective teacher insufficient, or no, opportunities during his student teaching to participate in many of the important activities in which he will be expected to engage as a regular teacher. If the trainer of teachers concedes that the kind of teacher a student will become depends considerably upon the nature of the experiences he shares during his student-teaching period, it then becomes the trainer's responsibility to provide typical school experiences in teaching for every student teacher. He needs, first of all, to observe and to work with the best teachers.

The prospective teacher, when he enters his professional training, has been experiencing teaching most of his life. Unfortunately, some of the instruction he has had, both in public schools and in colleges, has not been of the best quality. Since the teacher tends to teach as he was taught, poor teaching is likely to perpetuate itself. If the student-teaching program is to overcome the preconceived notions and misunderstandings about teaching which the student possesses, it must provide good teaching for beginning teachers to imitate.

In addition to actual practice in different types of instruction under competent guidance, the student teacher needs experiences in many activities which are related to actual teaching. If during his student teaching he is provided opportunities of participating in the school-guidance program, of planning extra-classroom activities, of directing home rooms, of using audio-visual aids, of teaching correlated, general-education courses, of sharing the life of the school and community through faculty meetings and curriculum-study committees, he will be saved some of the weaknesses possessed by many beginners.

THE writer recently attempted to ascertain the various opportunities for teaching and related experiences which are provided the prospective high-school teacher through student-teaching programs by universities. Eighty-one representative universities throughout the United States reported the activities in which the prospective teacher may participate during his student teaching. Opinions concerning the activities in which the student should engage during his student teaching were asked of 31 authorities on teacher education. The data presented in this report are related only to the opportunities

which universities provide and to those which are judged by these authorities essential to a well-rounded program.[1]

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While a high percentage of the experts favor providing the prospective teacher opportunities to teach in both his major and minor fields and on more than one grade level, less than two-thirds of the universities make such provisions in their programs according to Table I. Only 14 per cent of the 81 institutions make provisions for the student teacher to teach "core" or general-education courses, a practice favored by 42 per cent of

TABLE I

PERCENTAGES OF UNIVERSITIES PROVIDING, AND THE PERCENTAGES OF EXPERTS FAVORING, TEACHING ASSIGNMENTS AND OPPORTUNITIES FOR THE STUDENT TEACHER

Teaching Opportunities	Universities Providing	Experts Favoring
(1)	(2)	(3)
Both major and minor fields	66	84
More than one grade-level	57	97
"Core" or general-education courses	14	42
Co-operatively with other teachers	11	61
Number responding	81	31

the experts. More than three-fifths of the authorities favor permitting the student teacher to teach co-operatively with other teachers, but only 11 per cent of the universities make provision for this type of experience.

THE proficiency of the beginning teacher will be influenced by the responsibility which he assumes during his student-teaching experience. Some universities give complete responsibility to the student teacher for many of the important activities involved in teaching; others allow him opportunity to do little more than observe, assist, and carry out the plans of the supervising teacher. The data included in Table II indicate the extent to which the universities studied provide opportunities for the student teacher to assume responsibility in various activities involved in classroom instruction. The opinions of the experts indicate the extent to which the authorities on teacher education consider such practices desirable.

Ninety-one per cent of the universities make provision for

[1] "Pre-service Education of Prospective High-School Teachers in Universities." 1945. An unpublished doctoral dissertation on file in the library of the College of Education, University of Colorado.

the student teacher to plan or choose the method of instruction which he is to employ. About the same percentage of experts favor this practice. It may be assumed that the institutions and judges not represented by these percentages follow and favor, respectively, the practice of having the student teacher utilize methods of instruction which have been selected by someone else, presumably the supervising teacher. Essentially the same practice obtains for each of the other activities listed in Table II, with varying degrees of discrepancy shown between the practices of universities as a group and the recommendations of the authorities in teacher education. The most revealing finding is not the comparatively high percentage of universities which

TABLE II

PERCENTAGES OF UNIVERSITIES PROVIDING, AND THE PERCENTAGES OF EXPERTS FAVORING, OPPORTUNITIES FOR THE STUDENT TEACHER TO SHARE IN ACTIVITIES RELATED TO TEACHING

Opportunities to	Universities Providing	Experts Favoring
(1)	(2)	(3)
Plan methods of instruction	91	90
Select and organize subject-matter	90	87
Plan methods of developing pupils' interests	89	80
Help pupils develop desirable attitudes and ideals	80	84
Teach pupils how to study	77	80
Conduct socialized recitations	75	65
Use community resources in teaching	75	94
Teach with the aid of movies and radio	69	80
Develop long-term units of work	67	71
Devise and select tests	67	71
Select units of work to teach	62	94
Number responding	81	31

provide opportunities for these responsibilities to be assumed by the student teacher, but is rather the fact that some institutions provide no such opportunities for the prospective teacher. It may be inferred, for example, that in 38 per cent of the universities studied, the student teacher has no opportunity to "select the units of work he is to teach." Also, in 23 per cent of the institutions, student teachers do not have the opportunity during student teaching to "teach pupils how to study." The fact that not all the experts favor making such provisions for all student teachers may indicate that these are not required experiences for prospective teachers. This does not obviate the risk that, in school systems which require such activities, the beginning teacher may be placed at an initial disadvantage.

The student teacher is given the opportunity to diagnose pupils' difficulties and needs in 86 per cent of the universities, and the practice is favored by 97 per cent of the experts. More than three-fourths of the universities follow, while 70 per cent of the experts favor, the practice of permitting student teachers to assign the marks of pupils. Although 84 per cent of the experts believe that universities should provide opportunities for student teachers to practice modern techniques of evaluation, only 38 per cent of the institutions provide them.

TABLE III

PERCENTAGES OF UNIVERSITIES PROVIDING, AND THE PERCENTAGES OF EXPERTS FAVORING, OPPORTUNITIES FOR THE STUDENT TEACHER IN OBSERVING, DIAGNOSING, EVALUATING AND REPORTING ACTIVITIES

Opportunities to	Universities Providing	Experts Favoring
(1)	(2)	(3)
Diagnose pupils' difficulties and needs	86	97
Determine pupils' marks	78	70
Become familiar with best standardized tests in major and minor fields	68	84
Determine standards of pupils' behavior in classroom	62	74
Determine objectives of instruction	59	71
Observe and report different types of teaching	57	74
Practice modern techniques of evaluation	38	84
Explain regulations regarding pupils' conduct	27	47
Number responding	81	31

THE success of any teacher, and particularly the beginning teacher, frequently depends upon his ability to supervise and direct pupils in informal situations—in home rooms, clubs, intramural athletic programs, the school library, and study halls. Table IV reveals the extent to which experiences in certain activities of this type are provided by universities for the student teacher.

Apparently not much emphasis is placed upon preparing prospective teachers to direct these activities since, with the exception of the first two activities listed, less than half of the institutions reporting make provisions for the student teacher to gain experience in supervising such activities. The importance of preparing the teacher to direct these activities is recognized by the experts, over half of whom favor providing the student teacher with the opportunities for gaining experience in each of the activities listed. Several significant differ-

TABLE IV

PERCENTAGES OF UNIVERSITIES PROVIDING, AND THE PERCENTAGES OF EXPERTS FAVORING, OPPORTUNITIES FOR THE STUDENT TEACHER IN SUPERVISING AND DIRECTING ACTIVITIES

Opportunities to	Universities Providing	Experts Favoring
(1)	(2)	(3)
Direct routine school activities	79	90
Handle disciplinary problems	79	77
Direct excursions	49	65
Direct intramural activities	47	51
Direct home-room activities	44	74
Sponsor clubs	37	68
Supervise noon recreational program	37	71
Supervise study halls	37	71
Direct experience units	35	68
Supervise school library	14	51
Supervise work experiences of youth	8	90
Number responding	81	31

TABLE V

PERCENTAGES OF UNIVERSITIES PROVIDING, AND THE PERCENTAGES OF EXPERTS FAVORING, OPPORTUNITIES FOR THE STUDENT TEACHER IN NON-TEACHING ACTIVITIES

Opportunities to	Universities Providing	Experts Favoring
(1)	(2)	(3)
Attend school assemblies	85	94
Assist with school plays, publications, and speech activities	78	80
Assist in chaperoning social activities of pupils	58	74
Attend high-school faculty meetings	52	70
Help with drives, campaigns, and so on	52	55
Belong to professional organizations	47	74
Participate in community life	40	55
Attend departmental and committee meetings	36	74
Participate in high-school staff recreation	36	74
Assist with student-government activities	32	55
Participate in the school-guidance program	32	84
Make contacts with parents	28	74
Participate in high-school program of curriculum development	17	58
Number responding	81	31

ences exist between practice of universities as a group and the combined opinions of the experts. The most striking is related to the "supervision of work experiences of youth," the opportunity for which is provided the student teacher in 8 per cent of the universities but favored by 90 per cent of the authorities on teacher education.

The provisions made by universities for the student teacher to participate in several non-teaching activities are revealed

by Table V. Eighty-five per cent of the universities studied make provisions for the student teachers to attend assemblies in the co-operating high schools; 78 per cent ask student teachers to assist with school plays, publications, and speech activities; 58 per cent invite them to chaperon social activities of high-school pupils; and 52 per cent provide opportunities for student teachers to attend meetings of the high-school faculty as well as to help with school drives and campaigns.

At a time when many high schools are attempting to develop comprehensive guidance programs, only 32 per cent of the universities make provision for prospective teachers to participate in such activities, a practice highly favored by the authorities on teacher education. Likewise, only 28 per cent of the universities make provision for student teachers to confer with parents—favored by 74 per cent of the experts—and 17 per cent provide opportunities for student teachers to participate in the program of curriculum development of the high school.

THE information submitted by the co-operating universities and the opinions of the authorities on teacher education suggest the following conclusions. Student teachers are not given sufficient opportunity in some universities to:

Teach at more than one grade level
Teach in both major and minor fields
Teach "core" or general-education classes
Teach co-operatively with other teachers
Observe and report different types of teaching
Practice modern techniques of evaluation
Supervise work experiences of youth
Supervise the school library
Direct experience units
Supervise study halls
Supervise noon recreational programs
Sponsor clubs
Direct home-room activities
Participate in high-school programs of curriculum development
Participate in the school-guidance program
Make contacts with parents
Assist with student-government activities
Participate in high-school staff recreation
Attend departmental and committee meetings
Attend high-school faculty meetings
Participate in the life of the community
Assist in chaperoning social activities of pupils
Belong to professional organizations

Select units of work to teach
Devise and select tests
Develop long-term units of work
Determine objectives of instruction
Determine standards of pupil behavior in the classroom
Explain regulations regarding pupils' conduct.

THESE summaries of the practices of the universities and of the opinions of authorities on teacher education, as well as an extensive study of the literature related to this topic, furnish the basis for the following recommendations for the improvement of opportunities which the universities provide prospective teachers through student teaching:

First, as far as possible, the student teacher should be given experience in the activities in which he will be called upon to take part after he becomes a regularly employed teacher. Needs will vary with different localities. In some areas this will involve providing experiences which will prepare prospective teachers for small, rural high schools; in others, for the most modern, progressive, city school systems.

Second, it is suggested that universities provide opportunities through the student-teaching program for the prospective teacher to gain experience in extra-classroom activities, since practically every beginning teacher is called upon to supervise one or more of these activities, and his sucess as a teacher often depends upon his ability to lead students in such informal situations.

Third, universities should provide the student teacher opportunities to assume responsibilities related to teaching—curriculum development, guidance activities, community relationships, group planning by the faculty, and membership in professional organizations.

[Vol. XXV, No. 3]

A New Resource Unit on Science

By R. H. ECKELBERRY

A RESOURCE unit, "Science: Servant or Master?" was prepared last summer by a workshop group of experienced teachers, under the direction of H. B. Alberty.[1] The project was undertaken primarily as a learning experience for the participants, but it was hoped that the results would be

[1] The following persons were members of the group: Clara R. Chiara, Catherine M. Culleton, Thelma Turner Farmer, Marie C. Graham, Gilbert L. Porter, and Lillian Sosnow.

helpful to other teachers. The unit has now been mimeographed and made available for distribution.

> This resource unit is an attempt to sensitize teachers of all subjects to the possibilities of enriching the learning activities of high-school youth by helping them to see the significance of science in daily living. Science is dealt with in its broadest aspects, rather than as a technical body of knowledge. Consequently the use of the material requires no specialized knowledge of science as such.[2]

It should be emphasized that this is a resource unit, not a learning unit. The authors believe that a learning unit can properly be constructed only by a teacher and class in the light of the needs of that class. A resource unit is a collection of materials and suggested procedures—a "reservoir"—from which a teacher and class constructing a learning unit can draw those things that are appropriate to their own purposes.[3]

The first section of this unit is an exposition of a democratic philosophy of education; it is quoted from another resource unit, "Problems in Intercultural Education," which was prepared by another group of students.[4] It stresses respect for individuality, co-operative living, and faith in the method of intelligence as the fundamentals of democratic doctrine, and presents an analysis of the school's rôle in a democratic society.

The second section sets forth the major purposes of the unit, which include helping students to understand the significance of the scientific method, to comprehend the social and personal problems which have arisen because of the growth of technology, and to realize the danger of using the fruits of science for destructive ends and the possibility of utilizing them for human betterment. Other purposes are to promote understanding of the connection between the method of science and that of democracy, the development of consistent attitudes toward the problem of applying science to living, and an ability and desire to use the method of intelligence in solving one's own problems.

[2] "Science: Servant or Master?" Columbus, Ohio: College of Education, Ohio State University, 1946, p. 1. This is a resource unit for teachers prepared by a workshop group in curriculum development under the direction of Harold Alberty.

[3] For a discussion of the nature of a resource unit and its relation to a learning unit, *see* "How to Make a Resource Unit," EDUCATIONAL RESEARCH BULLETIN, XXIV (March 14, 1945), pp. 72–76, an article condensed from a mimeographed bulletin of the same title, prepared by a group of graduate students under the direction of H. B. Alberty.

[4] *See* R. H. Eckelberry, "Problems in Intercultural Education," EDUCATIONAL RESEARCH BULLETIN, XXIV (December 12, 1945), pp. 229–30.

The third section is a ten-page exposition of the meaning of science and scientific method. The next section is entitled "The Scope of the Unit." It discusses at some length four major topics having to do with the relation of science to problems of living: The Impact of Technology and Scientific Method on Social Living; The Relation of Science to Economic Living; The Effects of Science on Religion, Ethics, and Morals; and Science and Healthful Living. Under each of these topics, competing points of view which are more or less widely held are set forth. No conclusions concerning their relative merits are stated; the purpose is to provide materials to aid teachers and pupils in studying the various problems as a basis for drawing their own conclusions.

For example, under the heading, "The Relation of Science to Economic Living," the views of the adherents of capitalism, communism, socialism, and fascism are summarized. Under the topic, "The Effect of Science on Religion, Ethics, and Morals," the views of four schools of thought are set forth. These are the mechanists, the scientific humanists or experimentalists, the supernaturalists, and those who believe in a reconciliation between science and religion through recognizing that each is supreme in its own realm.

The discussion of the topic, "Science and Healthful Living," points out two major questions, in connection with each of which different points of view are held. The first of these is the extent to which the methods of science are to be used in dealing with the welfare of human beings; the second is the extent to which promotion of healthful living for all citizens should be regarded as a public function. In connection with the latter question, the views of three groups—the advocates and the opponents of socialized medicine, and those who believe that a balance is needed between public and private health services—are described.

The unit contains a list of 75 suggested activities for individual students. It is assumed, of course, that no class will make use of more than a small fraction of them. On the other hand, it is emphasized that the list is not complete but only suggestive: teachers and students should be able to think of many additional activities. The activities listed are of a wide variety, including such ones as an analysis of radio "commercials," a visit to a local

[*Continued on page 84*]

EDITORIAL COMMENT

The School Faces a Crisis

THE shortage of public-school teachers now existing and in prospect in this state is a major educational crisis. The facts are alarming. There are approximately 6,500 under-trained persons now teaching on temporary certificates; the public schools of the state will need 10,000 well-trained teachers within the next four or five years. Present enrollment in teacher-training institutions is approximately 40 per cent of normal, while by 1949 there will be some 83,000 more pupils in the elementary schools than there are today. According to present estimates, there will be more than 2,000 vacancies in teaching positions next fall. A study of 1,800 veterans who expect to go to college showed that about 50 per cent wanted to enter commerce and only 3 per cent wanted to prepare for teaching. As one person put it, if present trends continue, enrollment in the College of Education of Ohio State University may drop from the present 2,100 to 1,200, while the total University enrollment reaches more than 20,000. Much the same situation obtains throughout the country.

What is being done to meet the crisis which impends? A few weeks ago a conference of more than 200 educators met at the call of the State Department of Education to consider the problem. After discussion it set up a state committee of five to cope with the "number one problem in Ohio." This committee hopes to enlist the aid of representatives of business, industry, labor, press associations, service clubs, and other civic groups, in interesting the right kind of young people to enter the teaching profession. Naturally the committee has our best wishes for success in its important task.

There is, however, not likely to be any great improvement in situation unless there is a substantial increase in teachers' salaries to compensate for the increased cost of living. Teachers, like other salaried workers, have been badly pinched in recent years. Under existing conditions, it is not surprising that many have left the profession, and that many who have been in military service or war work will not be interested in entering or returning to teaching.

We cannot hope that salaries for teaching will be equal to those for many other jobs which require equal ability and training. In order to attract and hold the right kind of people in the profession, we must rely largely on the other types of satisfaction which teaching offers, and we must see to it that these non-material rewards are maintained and increased. But we can and must do something to reduce the differential between teachers' salaries and those for comparable work. This, of course, is a matter primarily for the General Assembly.

The most encouraging fact about the situation is that laymen as well as school people are becoming concerned. The publication of "Teachers' Pay, a National Disgrace" in the *Reader's Digest*, the series of ten articles entitled "Crisis Hovers over Schools," by Allen Shoenfield in the *Detroit Times*, and the activities and conclusions of the Committee on Education of the United States Chamber of Commerce are all important pieces of evidence pointing in this direction.

The *Reader's Digest* article mentions one prosperous community which starts its teachers at $400 a year less than its garbage collectors, and a state in which the minimum salary for teachers amounts to $4.25 a week less than the compensation to the unemployed. He cites cases in which pupils working part-time earn more than the teachers.

Shoenfield cites such facts as these: one industrial community near Detroit expects to lose 100 of its 115 teachers by June; during a period when industrial earnings rose 85 per cent and the cost of living an estimated 30 per cent, teachers' salaries rose only 15 per cent; the supply of teachers' college graduates fell from 1,984 in 1942 to 1,099 in 1945, and of the latter number only 808 were interested in teaching. The Chamber of Commerce Committee has conducted extensive studies which show a close correlation between the quality of public education and the standard of living. It insists that for the sake of maintaining our standard of living, more adequate provision for education is necessary.

These activities by laymen indicate that public opinion is being aroused and that, therefore, the problem will eventually be solved. But if serious harm is to be averted, quick action is needed.

R. H. E.

READINGS

Books to Read

PRALL, CHARLES E. "State Programs for the Improvement of Teacher Education." Washington, D.C.: American Council on Education, 1946. viii+379 pp.

In presenting the record of the development of state programs for the improvement of teacher education, Mr. Prall has done a careful piece of reporting for the Commission on Teacher Education. A foreword by Karl W. Bigelow, director of the Commission, indicates the area of interest of the Commission and the support which it gave to improvement projects selected.

Mr. Prall outlines in his first chapter the scope and objectives of the state-wide undertakings. On the first page of his report, he restates the present need "not so much for the further massing of facts, but rather for solutions of problems now recognized." With this need in mind, committees in selected states, aided by Commission members, attacked and tried to solve their most pressing problems.

Section II of Part I and the whole of Part II, which present a running account of the committee selection and work in upstate New York, West Virginia, Michigan, and Alabama, will probably be of more interest to educators in those states than to educators outside the selected areas.

In Part III of his analysis, Mr. Prall cuts across geographic lines and records significant findings with regard to child-study courses, patterns of student teaching, and professional course sequences which lead to alteration of emphasis in programs of teacher education. Finally, by the use of experience in Kentucky as an example, Mr. Prall presents confirmation of the need for continuous in-service training for teachers.

One interesting conclusion to which Mr. Prall's experience points deserves consideration by his readers: "The belief that without a common mind . . . no first steps toward reorganization can be taken" actually interferes with progress " . . . it presents a great initial handicap" (page 182). This statement and the textual explanation of it should be read seriously by those who place too much faith in a clearly conceived, unified purpose as the essential foundation for any experimentation in education.

The report of progress which Mr. Prall makes is the sort that any individual seriously concerned with teacher-education problems would expect. The state committees considered crucial education problems and took the indicated next steps to their solution. The broader interpretation of child study, of in-service training, of length and kind of experience in student teaching were to be expected. Mr. Prall's statement of implications for future study indicates useful organization guidelines for those who wish to continue study.

CLYDE HISSONG
Ohio Department of Education

CARNOVSKY, LEON, AND MARTIN, LOWELL, editors. *The Library in the Community*. Chicago: University of Chicago Press, 1944. viii+238 pp.

One finishes the reading of these eighteen papers presented before the Library Institute at the University of Chicago with a vivid realization of what

the library could be and accomplish in any community. Walter H. Blucher, in the final paper, dealing with the community of the future, states that "the city of the future will be whatever we want it to be" (page 215). Why, then, cannot the library in the community of the future be whatever we want it to be? The answer seems to be that it can if we are willing to make it so.

Communities herein are divided into four groups: large cities, small cities, suburbs, and rural areas. Each group is considered as it is in reality and as it could be. Actual examples of what libraries have done by way of community leadership and betterment are described and the part played by the library is told in detail. Throughout the book, emphasis is laid on the fact that all communities differ, and therefore any library program, to be effective, must first study its own community, not only its racial and economic make-up, but also its cultural aspects and its formal and informal organization and administration. Only as a library serves the community as a source of enlightenment is it an effective public agency.

The authors of these papers are predominantly non-library specialists: they outnumber the librarians 11 to 7. One finds among them a surprising unity and continuity of opinion in spite of the diversity of their specialized interests. Perhaps it is not so surprising when one considers that all are working toward better community living in a democracy. And the part a good library can play in such betterment is large, including the provision, in addition to books, of any materials useful in creating an informed public and in encouraging the growth of ideas and thinking. Such a program demands wise leadership on the part of the library personnel.

The volume is attractive, both in binding and format. It contains an excellent reading list for further study and has a good index.

RUTH E. SEEGER

CLARKE, H. HARRISON. *The Application of Measurement to Health and Physical Education.* New York: Prentice-Hall, Inc., 1945. xvi+415 pp.

In *Application of Measurement to Health and Physical Education,* Mr. Clarke adds a timely and valuable textbook to a field facing immediate and important advances as an outcome of wartime experiences. It differs from other books in the field largely because it employs the functional approach to measurement. Testing procedures are considered in relation to the specific physical-education objective they are designed to meet. Mr. Clarke has prepared this book primarily for the test user, seeking to make it possible for the physical educator to use evaluation procedures as readily as he now uses program materials.

The book is recommended for its fresh approach; its coverage of wartime physical-fitness tests used by schools, colleges, and the several branches of the military service; its avoidance of highly technical treatment of measurement procedures; and the excellence of its suggestions regarding inaugurating and conducting measurement programs—the application of measurement.

Like other textbooks in the field, it refers the reader to the original sources for many of the tests discussed. The book represents a distinct advance toward intelligent use of testing procedures in health and physical education. From its extensive coverage of measurement procedures, the teacher of physical education may select those tests appropriate to a given situation and most practical from the standpoints of validity and administrative economy.

A. S. DANIELS

EMBREE, EDWIN R. *Brown Americans: the Story of a Tenth of the Nation.* New York: Viking Press, 1943. vi+248 pp.

Brown Americans should be required reading for both the casual reader and the serious student of race relations. It presents a factual, scientific, readable picture of the rôle the Negro has played on the American scene.

The first part of the book deals with the cultural pattern of the slave groups before they were brought to America, and with the psychological and social adjustments that were forced upon the slave population in the new world. Economic conflicts with reference to slave labor, problems of health, and slow gruelling fight for educational opportunity both before and after the Civil War —all are given their proper and often dramatic perspective. The dice have been constantly loaded against the Negro, as the result of prejudice, tradition, taboos, and master-slave concepts which have sought to keep one-tenth of the population at the lowest possible level.

But despite all this, the Negro has made remarkable progress in every field of endeavor. The group has emerged as one that is seeking full citizenship. This poses a direct issue between those who maintain that the Negro should be "kept in his place" and those who believe that, in a changing world, the framework of democracy must be sufficiently flexible to include the Negro as a first-class citizen. For the weight of valid scientific data points to the fact that he is capable of sharing in the experiment of democratic life. The problem of whether or not this opportunity shall be granted to Brown Americans becomes more vital in as much as it is no longer sectional or national but, in the truest sense, international in its import.

As the author of *Brown Americans* says: "If we are to have a decent and orderly world, we must prove that we want democracy for all men, not merely for white men. The test of our belief in universal freedom is our practice at home" (page 2).

Brown Americans, therefore, presents a stimulating and challenging thesis. Upon our reaction to the data which it presents we may well have to depend for the answer to the meaningfulness of democracy as a way of life.

J. ARNETT MITCHELL
Champion Junior High School
Columbus

MEYER, ADOLPH E. *The Development of Education in the Twentieth Century.* New York: Prentice-Hall, Inc., 1944. xx+406 pp.

This book gives a bird's-eye view of the recent educational past, both in the United States and in Europe. Written in 1939 at the outbreak of World War II, it presents brief resumés of the contributions of John Dewey, Julius Meriam, William H. Kilpatrick, Hughes Mearns, and the work of important European educators such as Franz Cizek, Dalcroze, Montessori, Decroly, Otto, and Bertrand Russell.

Mr. Meyer makes a comparison between the old or traditional and the new or progressive school. Among the characteristics listed for the traditional school are the following: a premium is placed on knowledge for its own sake, inadequate consideration is given to personality; the child is expected to be quiet and receptive; instruction is built mainly around the senses of sight and hearing; the teacher questions and expects answers; individual thought, judgment, and expression on the part of pupils are not fostered; inadequate attention is given to individual ability; and education is looked upon mainly as prep-

aration for adult life. Strengths listed for the traditional school include stress on the development of a moral personality, thoroughness of instruction, and emphasis on some valuable attitudes, habits, and ideals, such as effort, industry, tidiness, and punctuality.

After pointing out that the progressive school is primarily a protest against the practices of the old school, Mr. Meyer lists the general characteristics which are discernible in the schools influenced by the progressive movement: freedom, activity, experience as the basis of the curriculum; creative expression; recognition of the individual; child study; all-around growth of child; slower rhythm of growth; elimination of competition; teacher participation; and parental co-operation. In discussing progressive education, Mr. Meyer describes the origin and practices of several experimental schools, both in America and abroad: the Francis Parker School, Marietta Johnson's Fairhope School, the Ojai Valley School, the Associated Experimental Schools in the New York City area, Bedales, the Odenwald School, and others.

Several other twentieth-century developments in education, such as the measurement movement and curriculum reconstruction, are mentioned. Various types of psychology are treated: structuralism, functionalism, behaviorism, Gestalt, and psychoanalysis. The education of exceptional children, the Dalton and Winnetka plans for individualizing education, the platoon-school movement, and developments in adult and college education are discussed.

National systems of education in England, France, Germany, Italy, Russia, and the United States are described and contrasted. An attempt has been made to show how a national educational system is affected by political philosophy. Of particular interest is the explanation of the effect of World War I on education in European countries, and the ways in which schools were utilized to further the ends of those in power in preparation for World War II.

Mr. Meyer has made a careful and painstaking analysis of education during the past four decades. *The Development of Education in the Twentieth Century* should be very helpful to either an educator or a layman who is trying to gain a perspective on recent educational developments.

ROBERT S. GILCHRIST

LANE, ROBERT HILL. *The Principal in the Modern Elementary School.* Boston: Houghton Mifflin Company, 1944. xi+313 pp.

Mr. Lane has addressed the concluding volume of his series of three books on the modern elementary school to principals in service and to teachers who wish to become principals. The book contains a wealth of information and reference material on the duties, the responsibilities, the opportunities, and the privileges of an elementary-school principal as well as the personal qualities and characteristics necessary for success in this field.

Management and direction of learning are stressed as the two main functions of a principal. In serving these functions effectively, breadth of scholarship and experience, knowledge of child growth and development, particularly at the pre-school level, a well-defined democratic philosophy of education, ability to handle and inspire people, alertness to community resources and happenings, familiarity with educational trends, a sound business sense, and a stable and forceful personality are emphasized as essentials.

The two chapters on critical appraisal and evaluation reflect the growing

concern of school people for an examination of their programs in terms of their purposes and objectives and particularly for evidence of how well they are promoting the human development with which schools are concerned. Of timely interest, too, is the chapter on "The Principal as Architect and Builder" and, especially, the section on "New School Buildings for a New America." Eighty-one plates interspersed throughout the book illustrate newer types of buildings, rooms, and equipment.

The book is recommended reading for all elementary-school principals—among whom the kind of leadership described is too often lacking.

CECILE SWALES

FRENCH, JOHN S. *Trends in Employment and Earnings for 19 Graduating Classes of a Teachers College.* New York: Teachers College, Columbia University, 1945. vi+103 pp. (Teachers College, Columbia University, Contributions to Education, No. 911).

In this report of his doctoral study, Mr. French explores the question, What happens to the graduates of a state teachers' college? The data he presents are for the most part related to the employment status and salaries of persons in the 19 graduating classes selected for study. The period covered by the study, from 1927 through 1936, reflects pre-war conditions. Only the graduates of New Jersey State Teachers College at Newark were considered.

Students of teacher-status and employment conditions in the profession will find this publication of interest. Reasons teachers give for leaving the profession, salaries received by graduates, and types of positions held are topics of the sort with which the author was concerned.

In common with other studies of teachers, *Trends in Employment* presents further evidence of the low salaries received by teachers during the depression years and shows that members of the profession made up salary losses more slowly than did workers in industry. The trend toward lower salaries, Mr. French states, began prior to the depression.

While the relatively narrow scope of the study may tend to limit its value to students in the New Jersey area, the research apparently was done with care, and the procedures followed should be of interest to advanced students of teacher-personnel problems.

HAROLD G. SHANE

EBAUGH, CAMERON D. *Education in Chile.* Washington, D.C.: United States Government Printing Office, 1945. 123 pp. (Federal Security Agency, United States Office of Education Bulletin 1945, No. 10)

The information in this bulletin was gathered in 1944. It deals first with the resources and the people of Chile and with the history of Chilean education from colonial days to the present. The remaining chapters describe elementary education, the Chilean teacher, and secondary, vocational, and higher education. There are diagrams, tables, and courses of study, to summarize important information about education at each of these levels.

Chile's public schools are administered by the 25 provinces into which the country is divided and by the National Ministry of Public Education. The system is highly centralized under this Ministry. The public government-owned schools form a ladder system which extends from the kindergarten

through the university. There are a great many vocational schools on the secondary level, and there is a present disposition to extend and emphasize these. Two basic facts about Chilean education are, first, that about five thousand great owners hold 90 per cent of the land; and, second, that in spite of great progress in the last forty years, about one-fourth of the people are still illiterate.

H. G. Good

Reavis, William C., compiler and editor. "Significant Aspects of American Life and Postwar Education." Chicago: University of Chicago, 1944. vi+178 pp. (Proceedings of the Thirteenth Annual Conference for Administrative Officers of Public and Private Schools) Offset printed.

This volume contains 15 addresses given at the morning sessions of the Thirteenth Annual Conference for Administrative Officers of Public and Private Schools, held under the auspices of the University of Chicago. Because of the paper shortage, the questions discussed at round tables are not included. This omission makes the term *proceedings* somewhat misleading. The addresses deal with problems in five areas: The Improvement of American Life, Democratic Living, Equality of Educational Opportunity, The Changing Economy and the Relation of Government to the Economic Order, and the Educational Problems of a Changing Population. There is a brief bibliography.

Educational administrators and others concerned with formulating educational policy will find this volume useful. The editing and typing could have been improved.

R. H. Eckelberry

1 1 1

A New Resource Unit on Science

[*Continued from page 76*]

telephone exchange, and study of radar, industrial occupations in the community, a slum area, the Patent Office, typical home menus, sewage disposal, and so on.

The general bibliography is quite extensive. It lists and annotates not only books and articles dealing systematically with various problems and topics, but also novels, plays, and films. It is supplemented by briefer annotated bibliographies in connection with the various sections and subsections.

Following the general bibliography is a section dealing with evaluation of outcomes. Numerous suggestions for the self-evaluation of teachers and for evaluation of the achievement of pupils are given. There is an annotated bibliography of tests.

The final section consists of suggestions for developing a learning unit, and for using the resource unit in school situations where learning units are not appropriate.